



## **DEPARTMENT OF TRANSPORTATION**

### **Federal Motor Carrier Safety Administration**

**[Docket No FMCSA–2015-0149]**

#### **Proposal for Future Enhancements to the Safety Measurement System (SMS)**

**AGENCY:** Federal Motor Carrier Safety Administration (FMCSA), DOT.

**ACTION:** Notice; request for public comment.

**SUMMARY:** FMCSA provides notice and seeks comments on proposed enhancements to the Agency's Safety Measurement System (SMS) methodology. Consistent with its prior announcements, the Agency is proposing changes to the SMS that are the direct result of feedback from stakeholders and the Agency's ongoing continuous improvement efforts. The Agency is considering several changes in this notice and is asking for comment on these issues, and other possible areas for consideration. This set of enhancements would include changing some of the SMS Intervention Thresholds to better reflect the Behavior Analysis and Safety Improvement Categories' (BASICS) correlation to crash risk, other changes to the Hazardous Materials (HM) Compliance BASIC, reclassifying violations for operating while out-of-service (OOS) to the Unsafe Driving BASIC, and adjustments to the Utilization Factor (UF). FMCSA will provide a preview of the proposed enhancements allowing motor carriers to see their own data, enforcement to see the data, and an opportunity for all to comment prior to implementation.

**DATES:** Comments must be received on or before [INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** You may submit comments bearing the Federal Docket Management System (FDMS) Docket ID FMCSA-2015-0149 using any of the following methods:

- Federal eRulemaking Portal: Go to [www.regulations.gov](http://www.regulations.gov). Follow the on-line instructions for submitting comments.
- Mail: Docket Management Facility; U.S. Department of Transportation, 1200 New Jersey Avenue, SE, West Building Ground Floor, Room W12-140, Washington, DC 20590-0001.
- Hand Delivery or Courier: West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue, SE, Washington, DC, between 9 a.m. and 5 p.m., ET, Monday through Friday, except Federal Holidays.
- Fax: 1-202-493-2251.

Each submission must include the Agency name and the docket number for this notice. Note that DOT posts all comments received without change to [www.regulations.gov](http://www.regulations.gov), including any personal information included in a comment. Please see the Privacy Act heading below.

Docket: For access to the docket to read background documents or comments, go to [www.regulations.gov](http://www.regulations.gov) at any time or visit Room W12-140 on the ground level of the West Building, 1200 New Jersey Avenue, SE, Washington, DC, between 9 a.m. and 5 p.m., ET, Monday through Friday, except Federal holidays. The on-line FDMS is available 24 hours each day, 365 days each year. If you want

acknowledgment that we received your comments, please include a self-addressed, stamped envelope or postcard or print the acknowledgement page that appears after submitting comments on-line.

Privacy Act: In accordance with 5 USC 553(c), DOT solicits comments from the public to better inform its rulemaking process. DOT posts these comments, without edit, including any personal information the commenter provides, to [www.regulations.gov](http://www.regulations.gov), as described in the system of records notice (DOT/ALL-14 FDMS), which can be reviewed at [www.dot.gov/privacy](http://www.dot.gov/privacy).

**FOR FURTHER INFORMATION CONTACT:** For information concerning this notice, contact Mr. David Yessen, Federal Motor Carrier Safety Administration, Compliance Division, 1200 New Jersey Avenue SE, Washington, DC 20590, Telephone 609-275-2606, E-Mail: [david.yessen@dot.gov](mailto:david.yessen@dot.gov). If you have questions on viewing or submitting material to the docket, contact Docket Services, telephone (202) 366-9826.

## **SUPPLEMENTARY INFORMATION:**

### **I. Background**

#### **The SMS**

FMCSA first announced the implementation of the SMS in the Federal Register on April 9, 2010 (75 FR 18256) (Docket No. FMCSA-2004-18898). Since December 2010, FMCSA and its State partners have used SMS to identify and prioritize motor carriers for interventions, including automated warning letters and investigations. Additionally, SMS serves as a principal factor in roadside inspection selection software designed to recommend motor carriers for inspections. The SMS

also provides the motor carrier industry, consumers, and other safety stakeholders with comprehensive safety performance data for many carriers. This information is updated monthly. SMS is available at the public Web site at <http://ai.fmcsa.dot.gov/SMS>. FMCSA announced improvements to the SMS in March 2012 (77 FR 18298) (Docket No. FMCSA-2012-0074), August 2012 (77 FR 52110) (Docket No. FMCSA-2004-18898), and July 2014 (79 FR 43117) (Docket No. FMCSA-2013-0392). As stated in the March 2012 notice, FMCSA plans to apply a systematic approach to making improvements to SMS, prioritizing, and releasing packages of improvements as needed.

FMCSA convened a Continuous Improvement Working Group (CIWG) comprised of Federal and State Enforcement personnel. This group used their diverse experiences to identify areas of needed improvement with SMS and the Compliance, Safety, Accountability interventions process. The CIWG recommendations are under review, and they informed the potential enhancements outlined below.

### **List of Proposed Enhancements**

FMCSA is proposing the following enhancements:

1. Changing some of the SMS Intervention Thresholds to better reflect the BASICS' correlation to crash risk.
2. Two changes to the HM Compliance BASIC:
  - Segmenting the HM Compliance BASIC by cargo tank (CT) and non-CT carriers; and

- Releasing motor carrier percentile rankings under the HM Compliance BASIC to the public.
3. Reclassifying violations for operating while OOS as under the Unsafe Driving BASIC, rather than the BASIC of the underlying OOS violation.
  4. Increasing the maximum Vehicle Miles Travelled (VMT) used in the UF to more accurately reflect operations of high-utilization carriers.

#### Proposed Changes to SMS Intervention Thresholds

The Agency published its most recent SMS Effectiveness Test at [http://csa.fmcsa.dot.gov/Documents/CSMS\\_Effectiveness\\_Test\\_Final\\_Report.pdf](http://csa.fmcsa.dot.gov/Documents/CSMS_Effectiveness_Test_Final_Report.pdf). After considering the results of this test and other independent analyses, FMCSA is proposing to make changes to more closely align intervention thresholds with each BASIC's correlation to crash risk. FMCSA determined that lowering the Vehicle Maintenance BASIC intervention threshold to better reflect the seriousness of the crash risk associated with vehicle maintenance issues and raising the intervention thresholds for the Controlled Substances/Alcohol, HM Compliance, and Driver Fitness BASICs would more effectively prioritize motor carriers.

As part of the SMS Effectiveness Test analysis, FMCSA analyzed the correlation of each BASIC with crash risk and introduced three levels of crash risk correlation:

- High: Unsafe Driving, Crash Indicator, Hours-of-Service (HOS) Compliance
- Medium: Vehicle Maintenance

- Low: Controlled Substances/Alcohol, HM Compliance, and Driver Fitness

The following chart illustrates the crash rates by BASIC, as demonstrated in the SMS Effectiveness Test.

<b>BASIC Over Threshold</b>	<b>Crash Rate (per 100 PUs)</b>	<b>% Increase in Crash Rate Compared to National Average (3.43)</b>
Unsafe Driving	6.62	93%
Crash Indicator	6.34	85%
HOS Compliance	6.26	83%
Vehicle Maintenance	5.65	65%
Controlled Substances/Alcohol	4.61	34%
HM Compliance	4.49	31%
Driver Fitness	3.11	-9%

After a thorough analysis of this information and other available studies, the Agency analyzed carriers over a variety of intervention thresholds, and compared those crash rates to the national average. Based on that analysis, the Agency is proposing to adjust the intervention thresholds as shown in the table below, to reflect the differences in the crash correlations of each BASIC:

<b>BASICS</b>	<b>Current Intervention Thresholds</b>	<b>Proposed Intervention Thresholds</b>
Unsafe Driving Crash Indicator HOS Compliance	65%	65%
Vehicle Maintenance	80%	75%
Controlled Substances/Alcohol HM Compliance	80%	90%

Driver Fitness		
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The Agency notes that lowering the Vehicle Maintenance BASIC intervention threshold will identify a new set of motor carriers to receive warning letters so that they may address non-compliance issues before crashes occur. The changes would maintain the current intervention thresholds of 65% for the BASICs with the strongest relationship to crash risk. While fewer carriers will be identified for interventions in those BASICs where FMCSA proposes to raise the threshold to 90%, a similar number of carriers will be identified across all BASICs as under the current intervention thresholds. In addition, under the proposed changes the carriers prioritized for interventions will have a higher crash rate than the carriers currently prioritized for interventions. We examined the interstate carriers that are identified as at or above intervention threshold in any of the six BASICs (HM is excluded as it is handled in a different analysis). The effectiveness testing, which uses historical data, showed under the current thresholds that 39,454 carriers at or above intervention thresholds had a crash rate of 5.12 crashes per 100 PUs and under the proposed thresholds 41,012 carriers at or above intervention threshold had a crash rate of 5.49 crashes per 100 PUs. This is a 7% increase in crash rate. A recent snapshot of SMS data (Dec 2014) shows that 2,431 carriers are newly identified while 453 are no longer identified with any of the six BASICs at or above the intervention threshold.

#### Proposed HM Compliance BASIC Changes

Industry and enforcement stakeholders raised concerns to FMCSA that large non-CT HM carriers have difficulty improving in the HM Compliance

BASIC because they are being unfairly compared to CT HM carriers. Non-CT HM and CT HM carriers have different operations and as a result they often receive different violations. After analyzing the issue carefully, FMCSA determined that segmenting the HM Compliance BASIC by CT and non-CT carriers will address this bias and improve the SMS's ability to identify HM carriers with serious safety problems.

FMCSA studied the feasibility of segmenting the HM Compliance BASIC by business type and found that for most motor carriers that operate CTs, the CTs make up a majority of the carrier's inspections. A carrier was categorized as a CT carrier if more than 50% of its inspections indicated the vehicles were CTs, and for most that percentage was actually much higher. Analysis shows that there are a sufficient number of carriers for both segments in all safety event groups (SEGs) for effective assessment. FMCSA reviewed BASIC percentile changes with segmentation and found that large CT carriers would see an increase in percentiles, while large non-CT carriers would see a decrease. Small carriers, both CT and non-CT, will not see a change.

#### **HM Cargo Segmentation Impact**

<b>SEG HM Inspections</b>	<b>Current BASIC %</b>	<b>New BASIC Non-CT %</b>	<b>New BASIC CT %</b>
5-10	80%	Same	Same
11-15	80%	Same	Same
16-40	80%	Same	Same
41-100	80%	71% (-9%)	85% (+5%)
100+	80%	62% (-18%)	90% (+10%)



With these changes, FMCSA is confident that the data in the HM Compliance BASIC appropriately reflects the distinct operations of these carriers. As a result, FMCSA proposes to make the HM Compliance BASIC information available to the public.

#### Violating Out-of-Service Orders

Currently, when a carrier is cited for violating an OOS Order, these violations are associated with the same BASIC as the initial OOS violation. However, the behavior of deciding to violate an OOS Order is more closely related to a motor carrier's or driver's safety judgment, regardless of the underlying OOS condition.

FMCSA reviewed these violations and analyzed the potential impact of reclassifying violations of an OOS Order to the Unsafe Driving BASIC. The Agency found that the crash rate of carriers at or above the intervention threshold in the Unsafe Driving BASIC will remain the same under this proposed change. Moreover, consolidating these OOS violations in the Unsafe Driving BASIC will help enforcement and motor carriers better identify and correct driver-related safety issues. Therefore, FMCSA proposes to move all violations of operating while OOS to the Unsafe Driving BASIC.

#### Changing the Maximum Vehicle Miles Travelled (VMT)

The Utilization Factor (UF) is an analytical element determined by dividing a motor carrier's vehicle miles traveled (VMT) by the number of power units (PU) in the carrier's fleet. The UF provides a more accurate picture of a carrier's safety and compliance. The UF is used in the Unsafe Driving BASIC

and Crash Indicator BASIC when a carrier has a higher than normal utilization of its vehicles (VMT per PU). The UF is currently limited to 200,000 miles. Industry stakeholders noted that the current UF is not accurate for some companies with extremely high utilization. Data reviewed by FMCSA indicates that 200,000 miles may not be the appropriate cap. Therefore, FMCSA is examining allowing additional credit to high-utilization carriers to provide a more accurate picture of the carriers' crash exposure and unsafe driving behaviors.

FMCSA believes that extending the UF to carriers with VMT per PU up to 250,000 miles, from the current level of 200,000, will allow for a better measure of exposure for carriers with very high utilization. During the preview, carriers will be able to see the individual impacts of this change.

FMCSA expects to begin a preview of the proposed enhancements later in 2015. Information on the availability of the preview will be made available on the SMS website, and the Agency will publish a subsequent Federal Register notice. Prior to implementation, motor carriers will be able to log in with their Portal account or PINs to view their own data and any proposed re-designed formats. The general public will be able to access simulated carrier data in order to view the proposed enhancements. During the preview period, FMCSA will hold several public webinars to provide stakeholders with detailed information about the SMS methodology enhancements.

## **II. Request for Comments**

In advance of the SMS preview, FMCSA requests comments on the above enhancements to the SMS. Commenters are requested to provide supporting data wherever appropriate.

Issued on: June 22, 2015.

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Chief Counsel.

**[4910-EX-P]**

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